SIEMENS

Data sheet 3RV2032-4RA10



Circuit breaker size S2 for motor protection, CLASS 10 A-release 70...80 A N-release 1040 A screw terminal increased switching capacity

product brand name	SIRIUS
product designation	Circuit breaker
design of the product	For motor protection
product type designation	3RV2
General technical data	
size of the circuit-breaker	S2
size of contactor can be combined company-specific	S2
product extension auxiliary switch	Yes
power loss [W] for rated value of the current	
 at AC in hot operating state 	29.5 W
at AC in hot operating state per pole	9.8 W
insulation voltage with degree of pollution 3 at AC rated value	690 V
surge voltage resistance rated value	6 kV
maximum permissible voltage for safe isolation in networks with grounded star point	
 between main and auxiliary circuit 	400 V
between main and auxiliary circuit	400 V
shock resistance acc. to IEC 60068-2-27	25g / 11 ms Sinus
mechanical service life (switching cycles)	
 of the main contacts typical 	20 000
of auxiliary contacts typical	20 000
electrical endurance (switching cycles) typical	20 000
type of protection according to ATEX directive 2014/34/EU	Ex II (2) GD
certificate of suitability according to ATEX directive 2014/34/EU	DMT 02 ATEX F 001
reference code acc. to IEC 81346-2	Q
Substance Prohibitance (Date)	01.03.2017
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
 during operation 	-20 +60 °C
during storage	-50 +80 °C
during transport	-50 +80 °C
temperature compensation	-20 +60 °C
relative humidity during operation	10 95 %
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the	70 80 A

aurrent dependent everload release	
current-dependent overload release operating voltage	
• rated value	690 V
• rated value	20 690 V
at AC-3 rated value maximum	690 V
operating frequency rated value	50 60 Hz
operating frequency fated value	80 A
operational current at AC-3 at 400 V rated value	80 A
operating power at AC-3	00 A
at 230 V rated value	22 kW
at 400 V rated value	37 kW
at 500 V rated value at 500 V rated value	55 kW
at 690 V rated value	75 kW
operating frequency at AC-3 maximum	15 1/h
Protective and monitoring functions	
product function	
ground fault detection	No
phase failure detection	Yes
trip class	CLASS 10
design of the overload release	thermal
breaking capacity operating short-circuit current (Ics)	
at AC	
• at 240 V rated value	100 kA
 at 400 V rated value 	50 kA
 at 500 V rated value 	8 kA
at 690 V rated value	4 kA
breaking capacity maximum short-circuit current (lcu)	
 at AC at 240 V rated value 	100 kA
 at AC at 400 V rated value 	100 kA
 at AC at 500 V rated value 	10 kA
at AC at 690 V rated value	6 kA
response value current of instantaneous short-circuit trip unit	1 040 A
UL/CSA ratings	
full-load current (FLA) for 3-phase AC motor	
 at 480 V rated value 	77 A
at 600 V rated value	77 A
yielded mechanical performance [hp]	
 for single-phase AC motor 	
 — at 110/120 V rated value 	7.5 hp
— at 230 V rated value	15 hp
• for 3-phase AC motor	
 at 200/208 V rated value 	25 hp
 at 220/230 V rated value 	30 hp
 at 460/480 V rated value 	60 hp
— at 575/600 V rated value	75 hp
Short-circuit protection	
product function short circuit protection	Yes
design of the short-circuit trip	magnetic
design of the fuse link for IT network for short-circuit protection of the main circuit	
• at 240 V	none required
• at 400 V	160
● at 500 V	125
• at 690 V	100
Installation/ mounting/ dimensions	000
mounting position	any
fastening method	screw and snap-on mounting onto 35 mm standard mounting rail according to DIN EN 60715
height	140 mm

width	55 mm
depth	149 mm
required spacing	
• for grounded parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for live parts at 400 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
• for grounded parts at 500 V	10 11111
— downwards	50 mm
	50 mm
— upwards	
— at the side	10 mm
• for live parts at 500 V	=0
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
 for grounded parts at 690 V 	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
● for live parts at 690 V	
— downwards	50 mm
— upwards	50 mm
— at the side	10 mm
Connections/ Terminals	
product component removable terminal for auxiliary	No
and control circuit	
type of electrical connection	
for main current circuit	screw-type terminals
arrangement of electrical connectors for main current circuit	Top and bottom
type of connectable conductor cross-sections	
 for main contacts 	
— solid or stranded	2x (1 35 mm²), 1x (1 50 mm²)
 finely stranded with core end processing 	2x (1 25 mm²), 1x (1 35 mm²)
 at AWG cables for main contacts 	2x (18 2), 1x (18 1)
tightening torque	
for main contacts with screw-type terminals	3 4.5 N·m
design of screwdriver shaft	Diameter 5 to 6 mm
size of the screwdriver tip	Pozidriv size 2
design of the thread of the connection screw	
for main contacts	M6
• for main contacts	M6
for main contacts Safety related data	M6
for main contacts Safety related data B10 value	
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920	M6 5 000
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures	5 000
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920	5 000 50 %
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920	5 000
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 failure rate [FIT]	5 000 50 % 50 %
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920	5 000 50 % 50 % 50 FIT
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 failure rate [FIT]	5 000 50 % 50 %
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 T1 value for proof test interval or service life acc. to	5 000 50 % 50 % 50 FIT
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 T1 value for proof test interval or service life acc. to IEC 61508	5 000 50 % 50 % 50 FIT 10 y
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529	5 000 50 % 50 FIT 10 y
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529	5 000 50 % 50 FIT 10 y IP20 finger-safe, for vertical contact from the front
for main contacts Safety related data B10 value with high demand rate acc. to SN 31920 proportion of dangerous failures with low demand rate acc. to SN 31920 with high demand rate acc. to SN 31920 failure rate [FIT] with low demand rate acc. to SN 31920 T1 value for proof test interval or service life acc. to IEC 61508 protection class IP on the front acc. to IEC 60529 touch protection on the front acc. to IEC 60529 display version for switching status	5 000 50 % 50 FIT 10 y IP20 finger-safe, for vertical contact from the front





Confirmation



<u>KC</u>



For use in hazardous locations

Declaration of Conformity

Test Certificates





UK Declaration of Conformity



Type Test Certificates/Test Report Special Test Certificate

Marine / Shipping













Marine / Shipping

other

Railway



Confirmation



Vibration and Shock

Confirmation

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RV2032-4RA10

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RV2032-4RA10

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RV2032-4RA10

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

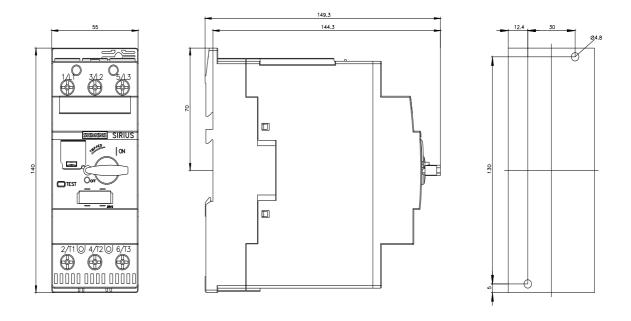
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3RV2032-4RA10&lang=en

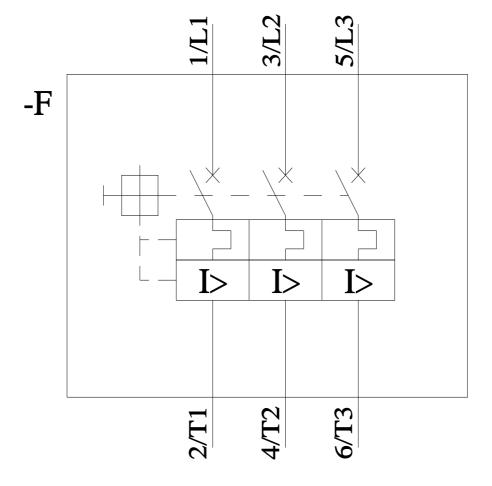
Characteristic: Tripping characteristics, I2t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RV2032-4RA10/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RV2032-4RA10&objecttype=14&gridview=view1





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